CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-10/478b/Cube/2017-18 23.12.2017

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Road Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{30}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	23.12.2017

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.11.2017	23.12.2017	8.468	700.5	31.13
2	25.11.2017	23.12.2017	8.318	725.4	32.24
3	25.11.2017	23.12.2017	8.107	739.5	32.87

*Information is furnished by the Customer/Representative.

Civil-Tech Consultants & Engineers Bangalore

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****

VIDYARANI P.K.
Technical Manager

AE-13

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರಮಣಶ್ರೀನಗರ, ಬೆಂಗಳೂರು

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Road Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{30}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	23.12.2017

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.11.2017	23.12.2017	8.119	748.5	33.27
2	25.11.2017	23.12.2017	8.246	728.3	32.37
3	25.11.2017	23.12.2017	8.079	716.5	31.84

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T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-10/478b/Cube/2017-18 25.12.2017

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Road Concrete
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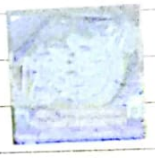
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{30}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	25.12.2017



Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.11.2017	25.12.2017	8.168	717.3	31.88
2	27.11.2017	25.12.2017	8.458	739.4	32.86
3	27.11.2017	25.12.2017	8.327	760.2	33.79

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ಆವರಣ ಮೆರಿಡಿಯನ್ ಮಾಲ್ ಎದುರಿಗೆ
ಬಸವೇಶ್ವರ ನಗರ, ಬೆಂಗಳೂರು. 560 079

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
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T-2377

Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-10/478b/Cube/2017-18 25.12.2017

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
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* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Road Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{30}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	25.12.2017

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.11.2017	25.12.2017	8.468	719.3	31.97
2	27.11.2017	25.12.2017	8.318	697.8	31.01
3	27.11.2017	25.12.2017	8.107	740.5	32.91

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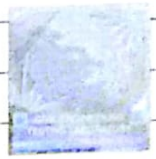
Job No.: CTCE/BBMP/W.No.13/KRIDL/CSR-10/478b/Cube/2017-18

25.12.2017

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Road Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{30}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	25.12.2017



Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.11.2017	25.12.2017	8.173	750.3	33.35
2	27.11.2017	25.12.2017	8.205	705.4	31.35
3	27.11.2017	25.12.2017	8.117	726.4	32.28

*Information is furnished by the Customer/Representative.

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ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು.

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Job No.: CTCE/BBMP/KRIDL/W.No.13/GSB-II/GR/2017-18

16.11.2017

TEST REPORT ON GRADATION FOR COARSE GRADED GARNULAR SUB BASE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Coarse Graded-II
Technical Reference	:	IS : 2720 (Part - 4), MORTH Table : 400-02
Date of Testing	:	16.11.2017

Oven Dry Wt (gm) : 5000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
53	-	-	-	100	100
26.5	2210	2210	44.20	55.80	50-80
4.75	1500	3710	74.20	25.80	15-35
0.075	910	4620	92.40	7.60	0-10
PAN	380				
Total	5000				

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Remarks: Satisfies MORTH Specifications as per Table 400-2, Grading II

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AE-13

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Tele Fax : 23223227, Website : www.civiltechconsultants.com

E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No.: CTCE/BBMP/KRIDL/W.No.13/GSB-II/AL/2017-18 Date 16.11.2017

TEST REPORT ON ATTERBERG LIMITS FOR GRANULAR SUB BASE

*Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
*Name of work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
*Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
Sample ID	:	GSB- (Coarse graded-II)
Technical Reference	:	IS : 2720 (Part - 5) 1985 (RA-2010), MORTH Table : 400-01
Date of Testing	:	16.11.2017

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	22.05	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Civil-tech Consultants & Engineers
#23/14, 7th Cross 3rd Stage 4th Block,
Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

AE-13

ನಿರ್ವಹಣೆ ಕಾರ್ಯ/ಕಾಮಗಾರಿ ಉಪವಿಭಾಗ ಸಂಖ್ಯೆ
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ರಾಜರಾಜೇಶ್ವರಿ ನಗರ
ವಿಭಾಗ ಮುಖ್ಯ ಅಭಿಯಂತರರ ಕಾರ್ಯಾಲಯ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಪಶ್ಚಿಮ ವಿಭಾಗ, ಬೆಂಗಳೂರು.

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04.12.2017

Job No:CTCE/BBMP/W.No.13/KRIDL/CSR-10/478b/Precast Slab/2017-18

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CORE

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements of roads in Mallasandra in Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/072/2017-18 Dated: 30.10.2017
* Sample ID	:	Precast Slab
* Grade of Concrete	:	M_{20}
Technical Reference	:	IS:516-1959 (RA- 2013), SP-24:1983.
Sample Received on	:	01.12.2017
Date of Testing	:	04.12.2017

Sl. No	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	82.00	0.403	2503.00	1.64	0.961	31.62	16.10	17.39	18.10	22.62
2	50.00	81.00	0.406	2552.77	1.62	0.959	32.54	16.57	17.90	17.16	21.45
3	50.00	80.00	0.408	2597.41	1.60	0.957	33.82	17.22	18.60	17.80	22.25

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